

about 5° in length, $40'$ in diameter, with a planetary nucleus of $20''$; on this evening δ *Scorpii* was seen doubly through the tail clear and well defined. On the evening of the 12th the condensed head of the Comet covered the small nebula marked 80 *Messier*, which nebula could not be seen at this time by any means I could adopt. On the 21st the Comet had apparently diminished so much as to be just visible to the naked eye when pointed out, and on the 22d it became telescopic.

1862, Sept. 6			R.A.	Decl.
	h	m	h	m
	6	30 P.M.	15 59	4 ° S.
11	8	30 ,,	16 10	19 40
12	7	20 ,,	16 11	22 30
14	10	10 ,,	16 13	26 25
15	7	10 ,,	16 14	27 30
16	10	30 ,,	16 15	29 20
17	7	35 ,,	16 16	31 10
18	7	15 ,,	16 17	32 0
19	7	35 ,,	16 18	33 30
20	7	45 ,,	16 19	34 30
21	7	30 ,,	16 20	35 50 S.

Private Observatory, Hobart Town, Sept. 23, 1862.

On the Cluster α Crucis, R.A. $12^h 43^m 36^s$, N.P.D. $149^{\circ} 25' 31''$ (3435, H.) Lac. 1110 (Neb.). By F. Abbott, Esq.

This delightful cluster, "which is estimated by Sir J. Herschel to be composed of from 50 to 100 stars," most of which partake of well-marked and varied colours, forms an object that is scarcely perceptible to the naked eye, but when under proper optical influence it is one of the most brilliant and interesting objects in the Southern sky.

This cluster is not only an object of interest from the extreme beauty of colour and arrangement, but with respect also to certain changes that are apparently taking place in the number, position, and colour of its component stars.

Some hesitation might be felt in following the author of the *Cape Observations*, with the means he employed, were it not for the encouraging invitation that is given for other observers to note any remarkable change that may have taken place since those results were published. Having, therefore, no knowledge of any other observation being made, or popular

account published of \star *Crucis*, except that at Feldhausen, I have adopted it for comparison with the observations now made, and given in the drawing for the present epoch.*

The colour of all the stars, where distinct colour could be detected, is given on the drawing; the smaller stars, however, from the 10th to the 14th magnitude, are generalised, and all partake of nearly the same colour (Prussian blue), some with a little more or less tint of red or green mixed with the blue. The same Greek letters have, with one exception, been used in the drawing as those used for the Cape Monograph, but not exactly following those used in the Catalogue. The letters and numbers, when in combination, are grouped together in brackets, and intended to show colour and position only.

The 75 stars which are given in the drawing were observed, and their position laid down by means of a 5-foot achromatic telescope, with a $4\frac{1}{4}$ -inch object-glass of excellent quality. The power used for the purpose of laying down the position of the stars was 135; but for the colours a comet eyepiece of 27 was found preferable.

The colours, as well as the positions, were afterwards checked with a 7-foot achromatic by Dollond. The evening of the 24th of May was chosen for confirmation: it was a capital night—no moon, quite calm, and the object near the zenith; but with such a night I was not, with the means employed, able to bring out stars of the 15th and 16th magnitude given in the Cape Catalogue.

In the *Cape Observations* ϕ is laid down to the west of ϵ and δ ; they are now, however, situated in a straight line, which, when continued, reaches the star ζ ; a straight line also, drawn through α and β , cuts δ ; but the two conspicuous stars in the drawing, ν and θ , as well as the three small stars marked 12 above the belt, are not shown at all in the Cape Monograph; there are also two considerable stars, κ and λ , to the far west, which are not seen in the Cape description.

The two stars, α and β , apparently retain their colour; but ν has changed from greenish white to blueish purple; δ from green to pale cobalt; ϵ from red to Indian red; ζ from green to ultramarine; ϕ (marked η in the drawing) from blue green to emerald green; α^2 , called ruddy, partakes now of much the same colour as all the small stars of that magnitude.

*Private Observatory, Hobart Town,
May 1862.*

* The drawing was exhibited at the November Meeting of the Society.
—ED.